

REMARKS

The application has been carefully reviewed in light of the Office Action dated February 20, 2009. Claims 1, 4 to 7, 9 to 12 and 14 to 18 are in the application, of which Claims 1 and 12 are independent. Reconsideration and further examination are respectfully requested.

Claims 1, 4 to 7, 9 to 12 and 14 to 16 were rejected under 35 U.S.C. § 103(a) over U.S. Publication No. 2002/0032839 (Yamamoto) in view of U.S. Patent No. 5,444,690 (Childers). The rejection is respectfully traversed.

As part of the traversal, the independent claims are being broadened with respect to the definition of the operation for which the storage unit waits until completion. The independent claims as amended no longer specify waiting until "a write cache memory arranged inside the storage unit is flushed and/or rotation of a platter arranged inside the storage unit ends". This subject matter has been moved to new dependent Claims 17 and 18. The language of independent Claims 1 and 12 has been reverted to broader language found prior to the Amendment dated October 2, 2008. Accordingly, the USPTO and 'the public at large' should not rely on any of the arguments relative to the deleted language when determining validity or scope of the claims, or for any other purpose.

The amended independent claims concern a storage unit which is detachable from an information processing apparatus. According to one aspect of the invention, when an eject instruction is received by the storage unit, the storage unit (i) invalidates a connection with the information processing apparatus, (ii) waits until an operation which should be complete in the storage unit before the storage unit is ejected is complete, and

(iii) outputs an eject permission signal to the information processing apparatus for ejecting the storage unit, wherein the invalidating, waiting and outputting are performed by the storage unit which is ejected from the information processing apparatus by operation of the ejecting unit that ejects the storage unit in response to the eject permission signal.

By virtue of this arrangement, all of the invalidating, waiting and outputting are performed by the storage unit. As a consequence, it is the storage unit itself that decides when it can be ejected safely, and it is the storage unit itself that outputs a permission signal for ejection. This should be contrasted against other arrangements, such as an arrangement in which some other device decides when the storage can be rejected safely. For example, in an arrangement when the information processing apparatus decides when the storage unit can be ejected safely, a complicated configuration might be required to coordinate interaction between the information processing apparatus and the storage unit, so as to allow the information processing apparatus to determine when it is safe to eject the storage unit. In contrast, with the claimed arrangement, it is ordinarily possible to eject the storage unit from the information processing apparatus without specifically configuring the information processing apparatus to determine when an operation which should be complete in the storage unit is complete so that the storage unit can be ejected safely. Rather, the information processing apparatus need only wait for receipt of the permission signal.

Referring to specific claim language, amended independent Claim 1 is directed to a storage unit which is detachable from an information processing apparatus having an ejecting unit configured to eject the storage unit, the storage unit having a

storage medium for storing data from the information processing apparatus. The storage unit includes a controller for controlling storage of data into the storage medium, and a receiving unit configured to receive an eject instruction to eject the storage unit from the information processing apparatus. The storage unit further includes an invalidation unit configured to invalidate a connection with the information processing apparatus when the receiving unit receives the eject instruction, a waiting unit configured to wait until an operation which should be complete in the storage unit before the storage unit is ejected is complete, after the invalidation unit starts to invalidate the connection, and an output unit configured to output an eject permission signal, as a response to the eject instruction, to the information processing apparatus for ejecting the storage unit by the ejecting unit after completion of the wait of the waiting unit. The invalidation unit, the waiting unit and the output unit are arranged inside the storage unit which is ejected from the information processing apparatus by operation of the ejecting unit that ejects the storage unit in response to the eject permission signal.

Amended independent Claim 12 is directed to a method containing features substantially corresponding to the features of Claim 1.

The applied art is not understood to disclose or suggest the features set out in the claims. In particular, neither of Yamamoto and Childers is seen to disclose or suggest at least the features of a storage unit which (i) invalidates a connection with the information processing apparatus, (ii) waits until an operation which should be complete in the storage unit before the storage unit is ejected is complete, and (iii) outputs an eject permission signal to the information processing apparatus for ejecting the storage unit,

wherein the invalidating, waiting, and outputting are performed by the storage unit which is ejected from the information processing apparatus by operation of the ejecting unit that ejects the storage unit in response to the eject permission signal.

Yamamoto discloses a cache for storing acquired information in an HDD or DVD-RAM. The system is controlled such that writing of the cache contents is completed before the DVD-RAM is removed from the browser apparatus. Referring to Figure 17, according to Yamamoto, when a request for ejection of DVD-RAM disk 37 from DVD-RAM drive 33 is received, disk ejection request signal generation circuit 314 outputs a disk ejection request signal and ejection processing routine 312 begins. After process 312 is complete, a disk ejection permitting signal is sent to disk ejection inhibition circuit 315 in order to transmit the disk ejection request signal from disk ejection request signal generation circuit 314 to disk ejection mechanism 316. At this time, DVD-RAM disk 37 is ejected from DVD-RAM drive 33.

As conceded by the Office Action at page 5 and as shown by Figure 17, disk ejection request signal generation circuit 314, disk ejection inhibition circuit 315 and disk ejection mechanism 316 are all inside of DVD-RAM drive 33, but not inside of DVD-RAM disk 37 which is to be removed from DVD-RAM drive 33. Furthermore, ejection processing routine 312 is performed by disk ejection request signal generation circuit 314 which is inside of DVD-RAM drive 33 rather than DVD-RAM disk 37. Thus, as understood by Applicants, the process of ejecting DVD-RAM disk 37 is performed by DVD-RAM drive 33 rather than DVD-RAM disk 37 which is to be ejected from DVD-RAM drive 33.

In contrast, the present claims are directed to a storage unit which is ejected from an information processing apparatus, and which also (i) invalidates a connection with the information processing apparatus, (ii) waits until an operation which should be complete in the storage unit before the storage unit is ejected is complete, and (iii) outputs an eject permission signal to the information processing apparatus for ejecting the storage unit.

Childers has been studied but is not seen to overcome the deficiencies of Yamamoto.

Accordingly, the applied art is not seen to disclose or suggest at least the claimed features of a storage unit which (i) invalidates a connection with the information processing apparatus, (ii) waits until an operation which should be complete in the storage unit before the storage unit is ejected is complete, and (iii) outputs an eject permission signal to the information processing apparatus for ejecting the storage unit, wherein the invalidating, waiting, and outputting are performed by the storage unit which is ejected from the information processing apparatus by operation of the ejecting unit that ejects the storage unit in response to the eject permission signal.

The other claims in the application are each dependent from the independent claims and are believed to be allowable over the applied references for at least the same reasons. Because each dependent claim is deemed to define an additional aspect of the invention, however, the individual consideration of each on its own merits is respectfully requested.

No other matters being raised, it is believed that the entire application is fully in condition for allowance, and such action is courteously solicited.

Applicants' undersigned attorney may be reached in our Costa Mesa, California office at (714) 540-8700. All correspondence should continue to be directed to our below-listed address.

Respectfully submitted,


Michael K. O'Neill
Attorney for Applicants
Registration No.: 32,622

FITZPATRICK, CELLA, HARPER & SCINTO
30 Rockefeller Plaza
New York, New York 10112-3800
Facsimile: (212) 218-2200

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